

## CLAIMS

What is claimed is:

1. A motorcycle lifting device and carrier rack assembly for lifting and carrying a motorcycle on a vehicle, the vehicle having a receiver hitch, the lifting device and carrier rack assembly comprising:

an elongated carrier rail secured to the receiver hitch and alternately movable from a stowed position to a deployed position, the carrier rail receiving the motorcycle; and

lifting and lowering means for lifting the carrier rail from the deployed position to the stowed position and lowering the carrier rail from the deployed position to the stowed position;

wherein the carrier rail remains substantially parallel to the ground in both the stowed position and the deployed position and during lifting and lowering of the carrier rail.

2. The assembly of claim 1, and further comprising:

brackets mounted to the receiver hitch;

adjustable U-bolts for securing the brackets to the receiver hitch;

a cross bar;

mounting tubes secured to the cross bar and slidable into the brackets; and

safety pins insertable through the mounting tube into the brackets.

3. The assembly of claim 1 wherein the lifting and lowering means maintains a substantially vertical position during lifting and lowering thereby allowing the jack forces to be applied in a desired direction.

4. The assembly of claim 1 wherein the carrier rail has a first end and a second end, and further comprising:
  - a wheel chock for receiving the wheel of the motorcycle;
  - a pull down rod positioned over the wheel chock and positionable over the tire;
  - an over-center actuator cooperating with the pull down rod for securing the pull down rod over the tire of the motorcycle.
5. The assembly of claim 4 wherein the carrier rail has a first side wall and a second side wall, the first and second side walls extending from the first end of the carrier rail to the second end of the carrier rail, the wheel chock being positioned between the first side wall and the second side wall.
6. The assembly of claim 1, and further comprising:
  - pull down strap for receiving the foot pegs of the motorcycle; and
  - an over-center actuator cooperating with the pull down strap for securing the motorcycle.
7. The assembly of claim 6 wherein the position of the pull down strap and the over-center actuator is adjustable along at least a portion of the carrier rail.
8. The assembly of claim 1 wherein the carrier rail is rotatable to a position substantially perpendicular to the ground when in the stowed position.
9. A portable motorcycle carrier for carrying a motorcycle on a vehicle, the carrier comprising:
  - a mounting frame releasably secured to the vehicle;
  - a lift mechanism secured to the mounting frame;
  - a carrier rail for receiving the motorcycle and movable between a deployed position and a stowed position;

connection means secured between the carrier rail and the lift mechanism for maintaining the carrier rail in a substantially horizontal position when deployed, stowed, and at any position therebetween; and  
securement means on the carrier rail for releasably securing the motorcycle to the carrier rail.

10. The carrier of claim 9 wherein the connection means is a carrier rack chassis having carrier arms supporting the carrier rail.
11. The carrier of claim 9 wherein the lift mechanism maintains a substantially vertical position during lifting and lowering thereby allowing the jack forces to be applied in a desired direction.
12. The carrier of claim 9 wherein the carrier rail has a first end and a second end, and further comprising:
  - a wheel chock for receiving the wheel of the motorcycle;
  - a pull down rod positioned over the wheel chock and positionable over the tire;
  - and
  - an over-center actuator for securing the pull down rod over the tire of the motorcycle.
13. The carrier of claim 8, and further comprising:
  - pull down strap for receiving the foot pegs of the motorcycle; and
  - an over-center actuator cooperating with the pull down strap for securing the motorcycle.
14. The carrier of claim 13 wherein the position of the pull down strap and the over-center actuator is adjustable along at least a portion of the carrier rail.

15. The carrier of claim 8 wherein the carrier rail is rotatable to a position substantially perpendicular to the ground when in the stowed position.
16. A method for lifting and carrying a motorcycle on a vehicle, the method comprising:
- securing a carrier rail to the vehicle;
  - lowering the carrier rail from a stowed position adjacent the vehicle to a deployed position adjacent the ground;
  - maintaining the carrier rail in a substantially horizontal position in the stowed position, in the deployed position, and during lowering from the stowed position to the deployed position;
  - loading the motorcycle on the carrier rail from a position on the side of the vehicle;
  - lifting the carrier rail from the deployed position to the stowed position; and
  - maintaining the carrier rail in a substantially horizontal position during lifting from the deployed position to the stowed position.
17. The method of claim 16, and further comprising:
- providing lifting and lowering means; and
  - maintaining the lifting and lowering means in a substantially vertical position during lifting and lowering thereby allowing the jack forces to be applied in a desired direction.
18. The method of claim 16 wherein the carrier rail has a first end and a second end, and further comprising:
- securing a wheel chock to the carrier rail for receiving the wheel of the motorcycle;
  - positioning a pull down rod over the wheel chock; and

securing the pull down rod over the tire of the motorcycle.

19. The method of claim 16, and further comprising:  
providing a pull down strap for receiving the foot pegs of the motorcycle; and  
adjusting the position of the pull down strap; and  
securing the pull down strap.
20. The method of claim 16, and further comprising:  
rotating the carrier rail to a position substantially perpendicular to the ground  
when in the stowed position.